

## REMARKS

### **I. Introduction**

In response to the pending Office Action, Applicants have amended claim 1 to further clarify the subject matter of the present invention. Support for the amendment to claim 1 may be found, for example, in Fig. 1 and the related portions of the specification. No new matter has been added.

For the reasons set forth below, Applicants respectfully submit that all pending claims are patentable over the cited prior art.

### **II. The Rejection Of Claims 1-9 Under 35 U.S.C. § 103**

Claims 1-9 are rejected under 35 U.S.C. §103(a) as being unpatentable over the Acknowledged Prior Art (APA) in view of Maeda (USP No. 6,060,765). Applicants respectfully traverse this rejection for at least the following reasons.

With regard to the present invention, claim 1 discloses a silicon carbide semiconductor device comprising: a semiconductor layer made of silicon carbide; an electrode provided on the semiconductor layer; an interlayer dielectric film provided on the electrode; wherein the electrode comprises: a first electrode portion in contact with the semiconductor layer; and a second electrode portion interposed between the first electrode portion and the interlayer dielectric film; and the first electrode portion and the second electrode portion are formed from different materials; wherein the second electrode portion is in direct contact with the interlayer dielectric film.

In the Office Action, the Examiner admitted that the APA does not disclose a semiconductor device in which a first electrode portion and a second electrode portion are

formed of different materials (see, Fig. 9, present invention). However, the Examiner alleges that Maeda teaches a first electrode portion **4** and a second electrode portion **100** that are formed of different materials.

Maeda discloses a semiconductor device which includes a gate electrode **4**, a silicide **100** “to effectively contemplate low resistance” formed on the top portion of the gate electrode **4**, and a stopper film **9a** formed directly on the silicide **100**. However, the placement of the stopper film **9a** prevents the silicide **100** from having direct contact with the interlayer dielectric film **5**. Therefore, Maeda does not disclose a semiconductor device *wherein the second electrode portion is in direct contact with the interlayer dielectric film*. Accordingly, the combination of the APA and Maeda does not anticipate claim 1 of the present invention.

In order to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 USPQ 580 (CCPA1974). At a minimum, as both the APA and Maeda fail to teach or suggest a silicon carbide semiconductor device comprising: a semiconductor layer made of silicon carbide; an electrode provided on the semiconductor layer; an interlayer dielectric film provided on the electrode wherein the electrode comprises: a first electrode portion in contact with the semiconductor layer; and a second electrode portion interposed between the first electrode portion and the interlayer dielectric film; and the first electrode portion and the second electrode portion are formed from different materials; wherein the second electrode portion is in direct contact with the interlayer dielectric film, it is submitted that the APA and Maeda, alone or in combination, do not render claim 1 obvious. Accordingly, it is respectfully requested that the § 103 rejection of claim 1, and any pending claims dependent thereon be withdrawn.

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**III. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable**

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 1 is patentable for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

**IV. Conclusion**

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication of which is respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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